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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,135	09/11/2003	Manfred Brinkmann	7236	6900

7590 07/19/2004

Attn: Arlene J. Powers  
Samuels, Gauthier & Stevens, LLP  
Suite 3300  
225 Franklin Street  
Boston, MA 02110

EXAMINER

NGUYEN, GEORGE BINH MINH

ART UNIT	PAPER NUMBER
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3723

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/660,135

**Applicant(s)**

BRINKMANN, MANFRED

**Examiner**

George Nguyen

**Art Unit**

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-12 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 091103.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

Receipt is acknowledged of the IDS filed on September 11, 2003 which has been considered and placed of record in the file.

Claims 1-12 are presented for examination.

#### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation of **“terminating ring” and “segments” and “elevated segments”** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Please note that there is no reference number for “terminating ring” found either in the drawing or in the disclosure.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief

description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Regarding claim 1, the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

6. Claim 8 recites the limitation "the elevated segments" in line 2. There is insufficient antecedent basis for this limitation in the claim.

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7. Claim 11 recites the limitation "the outer edges" in line 2. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 12 recites the limitation "the inner edge" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

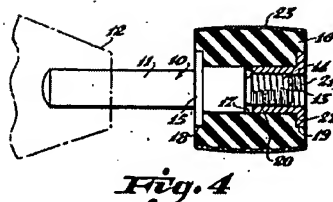
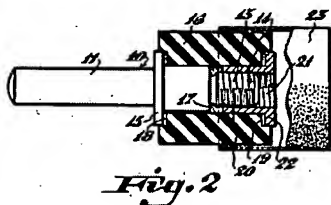
### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-3, 5-6, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Field'2,800,750.

With reference to Figures 2 and 4, Field discloses the claimed invention including: a) a pad holder 22; b) a frame 14; c) an abrasive 23 slipped over said pad holder 22.



As disclosed in the drawing, the arbor comprises a metal stem 10 having a shank 11, which may be mounted, 50 for example, in a chuck 12. The opposite end of the arbor is provided with a stud 13 having male threads 14 and, spaced somewhat from the stud, a compression flange 15. A rubber drum 16 is provided with a central bore 17 and counterbores 18 and 19 at each end. The 55 bore of the drum is of a diameter to just slip over the portion of the arbor between the stud and the compression flange, and the diameter of the stud is less than the bore of the drum. A compression sleeve 20 provided with internal screw threads 21 and an end flange 22 is utilized to apply compression to the rubber drum. The 60 compression sleeve fits snugly within the bore of the drum and its threading mates with the threading on the stud so that rotation of the compression sleeve squeezes the drum between the flanged end of the sleeve and the 65 flange on the stem. However, before the drum is expanded an abrasive or polishing sleeve 23 is slipped over the drum.

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Please note that the functional limitations of "characterized in that ... to be sanded" has been considered but was found to be inherent in the prior art tool because the abrasive backing 16 is made of rubber. However, Field does not disclose that pad holder 22 is made of elastic material.

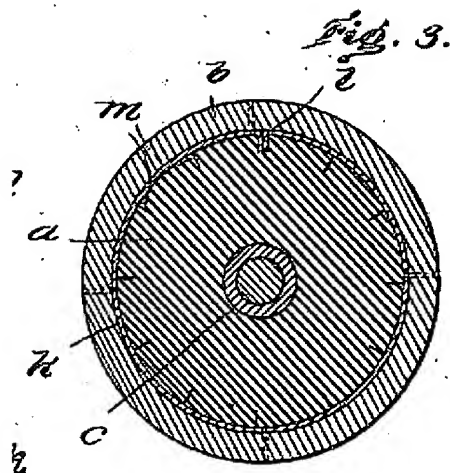
It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified to have utilize the elastic material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Regarding to claims 11-12, as well as understood due to the drawing objection above, Field appears to show these limitations in Figure 2.

11. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Field'750 in view of McDowell'1,216,244.

Field has been discussed above, but does not a plurality of segments on the pad holder. With reference to Figure 3, page 2, lines 18-65, McDowell discloses that a resilient polishing roll with an abrasive backing having a plurality of segments made by cuts (m). The advantage is to prevent any tendency of any part of the body to exert greater pressure than any other part of the covering of the roll and thereby to distort the covering from true circular form (col. 2, lines 40-45).

In the peripheral face of the body are a series of cuts or gashes *m* which extend diagonally or spirally with relation to the axis of the roll, as indicated in Fig. 4, and extend inward a short distance from the periphery of the body as indicated in Figs. 1 and 3. These cuts destroy the continuity of the peripheral portion of the elastic body and thereby perform an important function as hereinafter explained.

It will be understood from the foregoing description that axial pressure of the adjusting heads upon the elastic body will cause the same to expand toward the covering. Distortion of the body is thereby occasioned throughout so much of it as remains homogeneous, but the surface layer which is intersected by the cuts *m* is not homogeneous with the rest of the body but is discontinuous. Hence the discontinuous segments between the cuts are left in their natural state when the central part of the body is distorted and are caused to transmit only radial pressure, which is uniform at all points angularly about the axis. The discontinuity of the peripheral portion prevents any tendency of any part of the body to exert greater pressure than any other part on the covering of the roll and thereby to distort the covering from true circular form. Hence the roll is kept true under all conditions of pressure. The elastic body may be placed under any desired degree of tension so as to take up all slack in the covering and expand the latter smoothly and give it any desired degree of firmness or softness. At the same time, however great the pressure thus exerted outwardly may be, the covering is never made hard but is able to yield. This is especially valuable where the covering is of felt, which, if placed on an unyielding body or form would quickly become hard packed, but which, when placed on a rubber body of the character described, does not become packed hard although it is sufficiently firm to apply the necessary amount of pressure to polish the article acted upon.



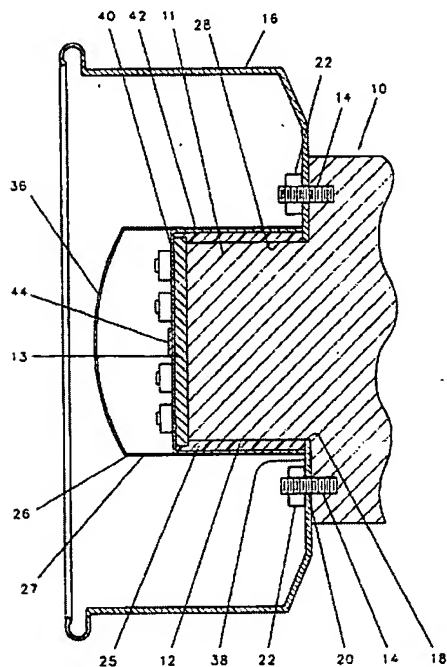
Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the abrasive backing of Field with a plurality of segments as taught by McDowell to prevent any tendency of any part of the body to exert greater pressure than any other part of the covering of the roll and thereby to distort the covering from true circular form (col. 2, lines 40-45).

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12. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Field'750 in view of Polka'5,366,279.

Field has been discussed above, but does not disclose a hub set forth in the claims.

With reference to Fig. 3, Polka discloses frame 10 having a central hub 16, a seat ring 25, and end ring 13.



Field discloses the claimed invention except that a threaded shaft instead of a hub.

Polka shows that a hub is an equivalent structure known in the art to attachably install an article to a rotational spindle (a tool in Field and a tire in Polka). Therefore, because these two elements were art-recognized equivalents at the time the invention was made, one of the ordinary skill in the art would have found it obvious to substitute a threaded shaft for a hub.



***Allowable Subject Matter***

13. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

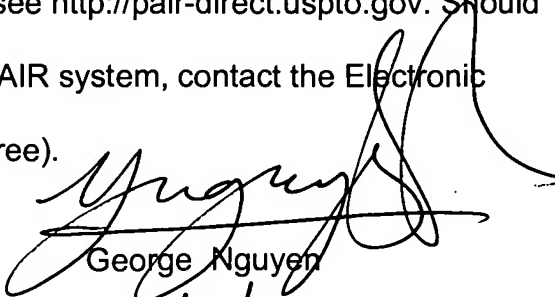
14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Evensen'515, Mulholland'210, Krause'873, Block'200, Howland'596, and Elsluo'685 all disclose a resilient polishing wheel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Nguyen whose telephone number is 703-308-0163. The examiner can normally be reached on Monday-Friday/630AM-300PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 703-308-2687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**GEORGE NGUYEN  
PRIMARY EXAMINER**

  
George Nguyen  
2/16/04